

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference OP06043	FOR FURTHER ACTION	See item 4 below
International application No. PCT/CN2006/000903	International filing date (<i>day/month/year</i>) 08 May 2006 (08.05.2006)	Priority date (<i>day/month/year</i>) 25 May 2005 (25.05.2005)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant HUAWEI TECHNOLOGIES CO., LTD.		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).																								
2.	<p>This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																								
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<p style="text-align: center;">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. +41 22 338 82 70</p>	<p>Date of issuance of this report 29 November 2007 (29.11.2007)</p> <p>Authorized officer <div style="text-align: center;">Nora Lindner</div></p> <p>e-mail: pt02.pct@wipo.int</p>
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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

LU Changming
UNITALEN ATTORNEYS AT LAW
7th Floor, Scitech Place, No.22, Jian Guo Men Wai Ave.,
Chao Yang District, Beijing 100004, P.R.China

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43 *bis*.1)

Date of mailing

18 JUL 2006 (13.07.2006)

Applicant's or agent's file reference

OP06043

FOR FURTHER ACTION

see paragraph 2 below

International application No.

PCT/CN2006/000903

International filing date (day/month/year)

08.May 2006 (08.05.2006)

Priority date (day/month/year)

25.May 2005 (25.05.2005)

International Patent Classification (IPC) or both national classification and IPC

H04M 3/30 (2006.01) i

Applicant

HUAWEI TECHNOLOGIES CO., LTD. ET AL

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/CN

The State Intellectual Property Office, the
P.R.China 6 Xitucheng Rd., Jimen Bridge,
Haidian District, Beijing, China 100088
Facsimile No. 86-10-62019451

Date of completion of this opinion

20.Jun.2006 (20.06.2006)

Authorized officer

FAN Xiaohan

Telephone No. (86-10)62084540

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/CN2006/000903

Box No. 1 Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
☐ in electronic form.

c. time of filing/furnishing

- ☐ contained in the international application as filed
☐ filed together with the international application in electronic form
☐ furnished subsequently to this Authority for the purposes of search

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/CN2006/000903

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement:

Novelty (N)	Claims 1-6	YES
	Claims NONE	NO
Inventive step (IS)	Claims 1-6	YES
	Claims NONE	NO
Industrial applicability (IA)	Claims 1-6	YES
	Claims NONE	NO

2. Citations and explanations

1. Following documents are cited in this written opinion chart:

D1 CN1340948A
D2 CN1536861A
D3 KR2003052402A

D1 discloses a monitoring method and equipment for state in subscriber line detection; D2 discloses an XDSL test method; D3 discloses a method for managing fault and in XDSL access section

2. Novelty

Since not all the technical features in claims 1-6 are disclosed by D1, D2, or D3 respectively. Thus, claims 1-6 meet the criteria set out in PCT Article33(2).

3. Inventive step

D1-D3 do not disclose the broadband device of the central office end capable of self-detecting and the detecting method of the independent claims 1 and 4 respectively, and the technical solutions of claims 1 and 4 can not be derived from the combination of D1-D3 either. Therefore, claims 1, 4 meet the criteria set out in PCT Article33(3).

As the same reasons, Claims 2-3, 5-6 can not be derived from the combination of D1-D3 obviously, therefore, claims 2-3, 5-6 meet the criteria set out in PCT Article33(3).

4. Industrial applicability

The device and method claimed in claims 1-6 can be applied to the industry field, Therefore, claims 1-6 meet the criteria set out in PCT Article33(4).

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e-mail: pt02.pct@wipo.int	

专利合作条约

发信人: 国际检索单位

收信人:

100004

中国北京市朝阳区建外大街 22 号赛特广场 7 层 30703

北京集佳知识产权代理有限公司

逯长明

PCT

国际检索单位书面意见

(PCT 细则 43 之二 .1)

发文日 (日/月/年)

13 · 7 月 2006 (13 · 07 · 2006)

申请人或代理人的档案号

OP06043

后续行为

见下面第 2 段

国际申请号

PCT/CN2006/000903

国际申请日 (日/月/年)

08.5 月 2006 (08.05.2006)

优先权日 (日/月/年)

25.5 月 2005 (25.05.2005)

国际专利分类(IPC)或国家分类和 IPC 两种分类

H04M 3/30 (2006.01) i

申请人

华为技术有限公司 等

1. 本意见包括关于下列各项的内容:

- ☒ I 意见的基础
- ☐ II 优先权
- ☐ III 不作出关于新颖性、创造性和工业实用性的意见
- ☐ IV 缺乏发明的单一性
- ☒ V 按照细则 43 之二.1(a)(i)关于新颖性、创造性或工业实用性的意见; 支持这种意见的引证和解释
- ☐ VI 引用的某些文件
- ☐ VII 国际申请中的某些缺陷
- ☐ VIII 对国际申请的某些意见

2. 后续行为

如果提出初步审查要求书, 本次意见将被视为国际初步审查单位(IPEA)的一次书面意见(如果申请人选择的国际初步审查单位非本单位, 而且所选国际初步审查单位已按照细则 66.1 之二(b)通知国际局将不考虑国际检索单位的书面意见时例外)。

如本书面意见被视为国际初步审查单位的书面意见, 则请申请人在自 PCT/ISA/220 发文之日起 3 个月或自优先权日起 22 个月内(以后届满者为准)向国际初步审查单位提交书面答复并提交修改(如适用), 详情见 PCT/ISA/220 表格。

3. 详细信息请见 PCT/ISA/220 表格的说明

中华人民共和国国家知识产权局
(ISA/CN)

中国北京市海淀区蓟门桥西土城路 6 号 100088
传真号: (86-10)62019451

完成本意见的日期

20.06 月 2006 (20.06.2006)

受权官员



电话号码: (86-10)62084540

I. 意见的基础

1、关于语言，制定书面意见基于：

☒ 申请提出时使用的语言。

☐ 该申请的____语言译文，为了国际检索的目的提供该种语言的译文(细则 12.3(a)和 23.1(b))。

2、关于国际申请中所公开的核苷酸和/或氨基酸序列表和对所称发明的必要性，该书面意见是在下列基础上制定的：

a. 材料的类型

☐ 序列表

☐ 与序列表相关的表格

b. 材料的形式

☐ 纸件形式

☐ 电子形式

c. 提交/提供时间

☐ 包括于已提交的国际申请。

☐ 以电子形式与国际申请一起提交。

☐ 为检索之用随后提交本国际检索单位。

3、☐ 另外，在提交/提供了多个核苷酸和/或氨基酸序列表和/或与其相关的表格的版本或副本的情况下，提供了关于后提交的或附加的副本与已提交的国际申请中的序列表相同或未超出国际申请中序列表范围（如适用）的声明。

4. 补充意见

V. 按细则 43 之二.1 关于新颖性、创造性或工业实用性的意见；支持这种意见的引证和解释

1. 意见

新颖性(N)	权利要求 1-6	是
	权利要求 无	否
创造性(IS)	权利要求 1-6	是
	权利要求 无	否
工业实用性(IA)	权利要求 1-6	是
	权利要求 无	否

2. 引证和解释

1. 本书面意见引用以下对比文件：

D1 CN1340948A

D2 CN1536861A

D3 KR2003052402A

D1 公开了一种用户线路测试中的状态监视方法和设备；D2 公开了一种 XDSL 的测试方法；D3 公开了一种在 XDSL 接入部分中管理故障的方法。

2. 新颖性

对比文件 D1-D4 均未公开权利要求 1-6 的全部技术特征，因此权利要求 1-6 具备新颖性，符合 PCT 第 33(2)的规定。

3. 创造性

D1-D3 均没有公开独立权利要求 1、4 的具有自检功能的局端宽带设备和方法，而且 D1-D3 的组合也不能显而易见地获得权利要求 1、4 的技术方案，因此，权利要求 1、4 具备创造性，符合 PCT 条约第 33 (3) 的规定。

同理，D1-D3 的组合不能显而易见地获得权利要求 2-3，5-6 的技术方案，因此，权利要求 2-3，5-6 具备创造性，符合 PCT 条约第 33 (3) 的规定。

4. 工业实用性

权利要求 1-6 要求保护具有自检功能的局端宽带设备可以在工业上使用，因此，权利要求 1-6 具备工业实用性，符合 PCT 条约第 33(4)的规定。

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专利合作条约

发信人: 国际检索单位

收信人:

100004

中国北京市朝阳区建外大街 22 号赛特广场 7 层 30703

北京集佳知识产权代理有限公司

逯长明

PCT

国际检索单位书面意见

(PCT 细则 43 之二 .1)

发文日 (日/月/年)

13 · 7 月 2006 (13 · 07 · 2006)

申请人或代理人的档案号

OP06043

后续行为

见下面第 2 段

国际申请号

PCT/CN2006/000903

国际申请日 (日/月/年)

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25.5 月 2005 (25.05.2005)

国际专利分类(IPC)或国家分类和 IPC 两种分类

H04M 3/30 (2006.01) i

申请人

华为技术有限公司 等

1. 本意见包括关于下列各项的内容:

- ☒ I 意见的基础
- ☐ II 优先权
- ☐ III 不作出关于新颖性、创造性和工业实用性的意见
- ☐ IV 缺乏发明的单一性
- ☒ V 按照细则 43 之二.1(a)(i)关于新颖性、创造性或工业实用性的意见; 支持这种意见的引证和解释
- ☐ VI 引用的某些文件
- ☐ VII 国际申请中的某些缺陷
- ☐ VIII 对国际申请的某些意见

2. 后续行为

如果提出初步审查要求书, 本次意见将被视为国际初步审查单位(IPEA)的一次书面意见(如果申请人选择的国际初步审查单位非本单位, 而且所选国际初步审查单位已按照细则 66.1 之二(b)通知国际局将不考虑国际检索单位的书面意见时例外)。

如本书面意见被视为国际初步审查单位的书面意见, 则请申请人在自 PCT/ISA/220 发文之日起 3 个月或自优先权日起 22 个月内(以后届满者为准)向国际初步审查单位提交书面答复并提交修改(如适用), 详情见 PCT/ISA/220 表格。

3. 详细信息请见 PCT/ISA/220 表格的说明

中华人民共和国国家知识产权局
(ISA/CN)

中国北京市海淀区蓟门桥西土城路 6 号 100088
传真号: (86-10)62019451

完成本意见的日期

20.06 月 2006 (20.06.2006)

受权官员



电话号码: (86-10)62084540

I. 意见的基础

1、关于语言，制定书面意见基于：

☒ 申请提出时使用的语言。

☐ 该申请的____语言译文，为了国际检索的目的提供该种语言的译文(细则 12.3(a)和 23.1(b))。

2、关于国际申请中所公开的核苷酸和/或氨基酸序列表和对所称发明的必要性，该书面意见是在下列基础上制定的：

a. 材料的类型

☐ 序列表

☐ 与序列表相关的表格

b. 材料的形式

☐ 纸件形式

☐ 电子形式

c. 提交/提供时间

☐ 包括于已提交的国际申请。

☐ 以电子形式与国际申请一起提交。

☐ 为检索之用随后提交本国际检索单位。

3、☐ 另外，在提交/提供了多个核苷酸和/或氨基酸序列表和/或与其相关的表格的版本或副本的情况下，提供了关于后提交的或附加的副本与已提交的国际申请中的序列表相同或未超出国际申请中序列表范围（如适用）的声明。

4. 补充意见

V. 按细则 43 之二.1 关于新颖性、创造性或工业实用性的意见；支持这种意见的引证和解释

1. 意见

新颖性(N)	权利要求 1-6	是
	权利要求 无	否
创造性(IS)	权利要求 1-6	是
	权利要求 无	否
工业实用性(IA)	权利要求 1-6	是
	权利要求 无	否

2. 引证和解释

1. 本书面意见引用以下对比文件：

D1 CN1340948A

D2 CN1536861A

D3 KR2003052402A

D1 公开了一种用户线路测试中的状态监视方法和设备；D2 公开了一种 XDSL 的测试方法；D3 公开了一种在 XDSL 接入部分中管理故障的方法。

2. 新颖性

对比文件 D1-D4 均未公开权利要求 1-6 的全部技术特征，因此权利要求 1-6 具备新颖性，符合 PCT 第 33(2)的规定。

3. 创造性

D1-D3 均没有公开独立权利要求 1、4 的具有自检功能的局端宽带设备和方法，而且 D1-D3 的组合也不能显而易见地获得权利要求 1、4 的技术方案，因此，权利要求 1、4 具备创造性，符合 PCT 条约第 33 (3) 的规定。

同理，D1-D3 的组合不能显而易见地获得权利要求 2-3，5-6 的技术方案，因此，权利要求 2-3，5-6 具备创造性，符合 PCT 条约第 33 (3) 的规定。

4. 工业实用性

权利要求 1-6 要求保护具有自检功能的局端宽带设备可以在工业上使用，因此，权利要求 1-6 具备工业实用性，符合 PCT 条约第 33(4)的规定。

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

LU Changming
UNITALEN ATTORNEYS AT LAW
7th Floor, Scitech Place, No.22, Jian Guo Men Wai Ave.,
Chao Yang District, Beijing 100004, P.R.China

PCT

WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY

(PCT Rule 43 *bis*.1)

Applicant's or agent's file reference OP06043		Date of mailing 18 Jul 2006 (13.07.2006)	
FOR FURTHER ACTION see paragraph 2 below			
International application No. PCT/CN2006/000903	International filing date (day/month/year) 08.May 2006 (08.05.2006)	Priority date (day/month/year) 25.May 2005 (25.05.2005)	
International Patent Classification (IPC) or both national classification and IPC H04M 3/30 (2006.01) i			
Applicant HUAWEI TECHNOLOGIES CO., LTD. ET AL			

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/CN The State Intellectual Property Office, the P.R.China 6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China 100088 Facsimile No. 86-10-62019451	Date of completion of this opinion 20.Jun.2006 (20.06.2006)	Authorized officer FAN Xiaohan Telephone No. (86-10)62084540
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Form PCT/ISA/237(cover sheet)(April 2005)

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/CN2006/000903

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed
☐ filed together with the international application in electronic form
☐ furnished subsequently to this Authority for the purposes of search

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/CN2006/000903

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement:

Novelty (N)	Claims	1-6	YES
	Claims	NONE	NO
Inventive step (IS)	Claims	1-6	YES
	Claims	NONE	NO
Industrial applicability (IA)	Claims	1-6	YES
	Claims	NONE	NO

2. Citations and explanations

1. Following documents are cited in this written opinion chart:

D1 CN1340948A
D2 CN1536861A
D3 KR2003052402A

D1 discloses a monitoring method and equipment for state in subscriber line detection; D2 discloses an XDSL test method; D3 discloses a method for managing fault and in XDSL access section

2. Novelty

Since not all the technical features in claims 1-6 are disclosed by D1, D2, or D3 respectively. Thus, claims 1-6 meet the criteria set out in PCT Article33(2).

3. Inventive step

D1-D3 do not disclose the broadband device of the central office end capable of self-detecting and the detecting method of the independent claims 1 and 4 respectively, and the technical solutions of claims 1 and 4 can not be derived from the combination of D1-D3 either. Therefor, claims 1, 4 meet the criteria set out in PCT Article33(3).

As the same reasons, Claims 2-3, 5-6 can not be derived from the combination of D1-D3 obviously, therefore, claims 2-3, 5-6 meet the criteria set out in PCT Article33(3).

4. Industrial applicability

The device and method claimed in claims 1-6 can be applied to the industry field, Therefore, claims 1-6 meet the criteria set out in PCT Article33(4).